

Appl. No. 10/705,591
Response dated: November 21, 2005
Reply to Office action of August 19, 2005

REMARKS

In response to the Office Action dated August 19, 2005, Applicants respectfully request reconsideration based on the above amendment and the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance.

Claims 1-20 are pending in the present Application.

No new matter has been introduced by the amendment and remarks. Reconsideration and allowance of the claims are respectfully requested in view of the above amendment and the following remarks.

Specification

The disclosure is objected to because of informalities. Particularly, Page 10, Line 17 includes a grammatical error where "another sheets" should read as "other sheets." In response, Applicants herein amend the Specification to change "another sheets" to "other sheets." Reconsideration and withdrawal of the relevant objection is respectfully requested.

Claim Rejections Under 35 U.S.C. §102

Claims 1, 4, 5, 9, 10 and 12-14 are rejected under 35 U.S.C. §102(b) as being anticipated by Hira et al., U.S. Patent No. 5,961,198 (hereinafter "Hira").

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Claim 1 recites:

A reflector for a back light assembly for use in an LCD device, comprising:

- a base film;
- a protrusion provided on a first surface of the base film; and
- a reflecting layer deposited on the base film and the protrusion, for reflecting light generated from a lamp

To support the rejection of Claim 1 at the top of Page 3 of the Office Action, it is respectfully contended that the protection film 19, the small convex 10 and the reflecting film 11

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of Hira disclose the base film, protrusion and reflecting layer of the claimed invention, respectively. However, Applicants respectfully contend that the rejection details in the Office Action mischaracterize the teachings of Hira with regard to at least the protection film 19 and the small convex 10 and do not provide the teaching or explanation as to how the protection film 19 and the convex 10 is equivalent to the base film and the protrusion of Applicants' claims.

Hira discloses the small convex 10 *formed in the light guide plate 2* and the reflecting film 11 *formed along the small convexes 10*. (Col. 8, lines 25-32, Col. 10, lines 6-8 and Figures 1, 9 and 10.) The protection film 19 is *additionally* deposited over a bottom or rear surface of the reflecting film 11 for the purpose of protecting the reflecting film 11 from variation of the reflectivity in the course of time and against physical injuries. (Col. 10, lines 10-15 and Figures 9 and 10.)

Figures 12(a)-12(e) for illustrating geometries or shapes of the small convexes 10 are described with the light guide plate 2 *provided with* the small convexes 10 and a protection film 19 formed over a surface of the reflecting film 11. (Col. 10, lines 30 to Col. 11, line 5.) The convexes 10 of Hira are not equivalent to the protrusion of the claimed invention in that the convexes 10 only provide a slant and bottom surface for the reflecting film 11. (Col. 8, lines 56-61.)

Firstly, the convexes 10 of Hira are provided first *on the light guide plate 2*, then the reflecting layer 11 is formed onto the convexes 10 and lastly, the protection layer 19 is formed over the reflecting layer 11. That is, the convexes 10 are not provided *on* the protection layer 19. The protection layer 19 is not a base to form the convexes 10 and only has its shape due to the fact it corresponds to the convexes 10 on the light guide plate 2. Therefore, Hira does not disclose at least a base film and a protrusion provided on the base film as claimed.

Secondly, the reflecting layer 11 is between the protection layer 19 and the convexes 10. That is, convexes 10 are not on any surface of the protection layer 19. Therefore, Hira does not disclose at least a base film and a protrusion provided on a first surface of the base film as claimed.

Finally, the protection layer 19 is formed *over* the reflecting layer 11, after the reflecting layer 11 is formed along the convexes 10. That is, the reflecting layer 11 is not formed on the protection layer 19. Therefore, Hira necessarily does not disclose a reflecting layer deposited on the base film and the protrusion as claimed.

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It is contended that Figure 13 of Hira discloses the convexes 10 being embossed on the protection film 19 as recited in Claim 4. As discussed above, the protection film 19 is formed *after* the convexes, not the reverse. Additionally, Applicants find no disclosure of any embossing method for any of the features of Hira. Therefore, Hira does not disclose the protrusion is embossed on the base film as claimed.

It is contended that the light guide plate 2 of Hira is disposed on a reflector as disclosed in Claim 9. The Examiner provides no explanation or feature of Hira that is equivalent to the reflector of the claimed invention. As the reflector of Claim 9 is recited as being according to Claim 1, Applicants assume that the reflector of Hira includes the protection film 19, the convexes 10 and the reflecting film 11, as discussed above with respect to the rejection of Claim 1. However, as clearly illustrated by at least Figures 2, 5, 6 and 9-17, the convexes 10 are a part of the light guide plate 2. The light guide plate 2 is not *disposed on* the convexes 10 because the convexes 10 and the light guide plate 2 are one element. Therefore, Hira does not disclose a light guide plate disposed on the reflector according to Claim 1 as claimed.

Lastly, it is contended that Table I in Columns 5 and 6 disclose an interval between adjacent protrusions on the base film varies in inverse proportion to a distance between the protrusions and the lamp unit as recited in Claim 12. Table I does not detail the interval between adjacent convexes 10 on the protection film 19. Table I includes data with respect to the reflecting film 11, as the first column is entitled. Therefore, Hira does not disclose the limitations of Claim 12.

Thus, Hira does not disclose all of the limitations of at least Claims 1, 4, 9 and 12. Accordingly, Hira does not anticipate Claims 1, 4, 9 and 12. Applicants respectfully submit that Claims 1, 4, 9 and 12 are not further objected or rejected and are thus allowable. Claims 5, 10 and 13-14 are also rejected in view of Hira. However, these claims variously depend from allowable Claim 1 and are thus correspondingly allowable. Reconsideration, withdrawal of the relevant rejections and allowance of Claims 1, 4, 5, 9, 10 and 12-14 is thus respectfully requested.

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Claim Rejections Under 35 U.S.C. §103

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art and that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Regarding Claims 2, 3 and 11

Claims 2, 3 and 11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hira. Applicants traverse these rejections.

Dependent claims inherit all of the limitations of their parent claim. Claims 2, 3 and 11 variously depend from Claim 1. As discussed above, Claim 1 is allowable over Hira. Accordingly, Claims 2, 3 and 11 are correspondingly allowable as depending upon allowable Claim 1. Reconsideration, withdrawal of the relevant rejections and allowance of Claims 2, 3 and 11 is thus respectfully requested.

Notwithstanding the allowability of Claims 2 and 3 above, Applicants respectfully submit that there is no suggestion or motivation in Hira to have the convexes 10 (contended to be equivalent to the protrusion of the claimed invention) made of elastic material or silicon resin as claimed.

It is respectfully contended on Page 4 of the Office Action that it would have been obvious to one having ordinary skill in the art at the time of the invention was made to incorporate the protrusion (eg. convex 10) out of an elastic material such as silicon resin, since it has been held to be within general skill or a worker in the art to select a known material on the basis of the suitability for its intended use. In this case, providing the protrusion with an elastic material would provide further protection to the reflecting film [Column 10, lines 10-15], as well as the device. Applicants respectfully disagree.

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Firstly, the protrusion is not provided with an elastic material, it is made of an elastic material or silicon resin as claimed. Applicants find no suggestion or motivation in Hira to make the convexes 10 or the guide plate 2, of which the convexes 10 are a physical extension, of elastic or silicon resin material.

Secondly, in an exemplary embodiment of the claimed invention, the protrusions are configured to absorb the impact between the reflector (comprising the base film with a protrusion and reflecting layer on the base film) and the light guide plate, preventing the base film from deformation. In Hira, the convexes 10 are for providing a slant and bottom surface for the reflecting film 11, not for absorbing any impact or protecting the reflecting film 11 and protection film 19. (Col. 8, lines 56-61.) Applicants find no disclosure in Hira of the convexes 10 for absorbing impact between the protection layer and reflecting layer with respect to the light guide plate. In Column 10, lines 10-15, it is the protection film 19 (corresponding to the base film in the Office Action) that is stated to protect the reflecting film 11, not the convexes 10 in any way. Thus, the protrusion of the claimed invention and the convexes 10 of Hira clearly have significantly different purposes as disclosed.

That is, the intended use of the convexes 10 is to provide a particular surface for the reflecting film 11. Applicants respectfully submit that the Examiner has offered no explanation as to the obviousness of making the convexes 10 out of a specific elastic material or silicon resin to merely provide a particular surface for a film disposed on the surface, as is the purpose of the convexes 10 in Hira.

Therefore, it would not have been obvious to make the convexes 10 of elastic material or silicon resin as suggested by the Examiner as there is no motivation or suggestion to modify Hira because the purposes or intended uses of the convexes 10 and protrusions of the claimed invention are significantly different.

Notwithstanding the allowability of Claim 11 above, Applicants respectfully submit that there is no suggestion or motivation in Hira that the protrusion has a diameter smaller than a pitch of the prism teeth of the light guide plate.

It is respectfully contended on Page 4 of the Office Action that it would have been obvious to change the size of the protrusion such that the diameter is smaller than the pitch of the light guide plate, since such a modification would have involved a mere change in size of a

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component, generally recognized as being within the level of ordinary skill in the art, permitting a desired optical effect on the illumination.

In an exemplary embodiment of the claimed invention, the size of the protrusion as claimed is disclosed as minimizing the deformation of the prism teeth against the protrusion. (Page 10, lines 19-25.) Applicants find no disclosure in Hari as to as minimizing the deformation of the prism teeth against the convexes 10. Therefore, it would not have been obvious to change the size of the protrusion to decrease deformation of the prism teeth as suggested by the Examiner as there is no motivation or suggestion to modify Hari to decrease the deformation of the prism teeth due to the convexes.

Regarding Claims 6-8 and 15-20

Claims 6-8 and 15-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hira as applied to Claims 1 and 9 above and further in view of Yang et al., U.S. Patent No. 6,151,089 (hereinafter "Yang"). Applicants traverse these rejections.

Claims 6-8 and 15-20 depend from Claim 1. As discussed above, Claim 1 is patentably distinct and allowable over Hira. Yang also does not teach all of the limitations of Claim 1 and therefore does not cure the deficiencies of Hira. Accordingly, Claims 6-8 and 15-20 are correspondingly allowable as depending upon allowable Claim 1. Reconsideration, withdrawal of the relevant rejections and allowance of Claims 6-8 and 15-20 is thus respectfully requested.

Conclusion

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued.

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If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicants' attorney hereby authorizes that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

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